

CLAIM AMENDMENTS

1. (currently amended): A method for enhancing and measuring acoustic reflectivity of a target for ultrasound imaging, the method comprising

(a) measuring reflectivity prior to raising the temperature of the bound nanoparticles;
(b) raising the temperature of liquid nanoparticles bound to said target to produce a measurable enhancement in acoustic reflectivity of the target;

(c) measuring reflectivity after raising the temperature of the bound nanoparticles; and

(d) determining the change in reflectivity after raising the temperature of the bound nanoparticles compared to reflectivity prior to raising the temperature of the bound nanoparticles,

wherein said nanoparticles comprise at least one fluorocarbon,
said nanoparticles having been administered to said target in a non-gaseous emulsion.

2. (canceled)

3. (previously presented): The method according to claim 1 wherein the fluorocarbon is perfluorooctane.

4-6. (canceled)

7. (previously presented): The method according to claim 1 wherein the nanoparticles comprise at least one liquid fluorocarbon encapsulated with at least one lipid surfactant which comprises at least one ligand that binds to said target.

8. (previously presented): The method according to claim 1 wherein the emulsion further comprises a biologically active agent.

9-12. (canceled)

13. (previously presented): The method according to claim 1 wherein raising the temperature comprises providing the target with ultrasound or electromagnetic energy or a

combination thereof, sufficient to raise the temperature of said nanoparticles, so as to enhance acoustic reflectivity.

14-16. (canceled)

17. (previously presented): The method according to claim 1 wherein changing the temperature comprises changing the temperature of the bound nanoparticles by at least 5°C.

18. (currently amended): A method for obtaining an image resulting from enhanced acoustic reflectivity of a target for ultrasound imaging, the method comprising changing the temperature of the liquid nanoparticles bound to said target sufficient to produce a measurable enhancement of acoustic reflectivity of the target, and obtaining an ultrasound image of said target, bound to said liquid nanoparticles, wherein said nanoparticles comprise at least one fluorocarbon, said nanoparticles having been administered to said target in a non-gaseous emulsion.

19-20. (canceled)

21. (previously presented): The method according to claim 18 wherein the fluorocarbon is perfluorooctane.

22-24. (canceled)

25. (previously presented): The method according to claim 18 wherein the nanoparticles comprise at least one perfluorocarbon encapsulated with at least one lipid surfactant which comprises at least one ligand that binds to said target.

26. (previously presented): The method according to claim 18 wherein the emulsion further comprises a biologically active agent.

27-30. (canceled)

31. (previously presented): The method according to claim 18 wherein changing the temperature comprises providing the target with ultrasound or electromagnetic energy or a combination thereof, sufficient to raise the temperature of said nanoparticles, so as to enhance acoustic reflectivity.

32-34. (canceled)

35. (previously presented): The method according to claim 18 wherein raising the temperature comprises raising the temperature of the bound nanoparticles by at least 5°C.

36-67. (canceled)

68. (previously presented): The method according to claim 7 wherein the ligand is a polypeptide, a peptidomimetic, a polysaccharide, a lipid, or a nucleic acid.

69. (previously presented): The method according to claim 68 wherein the polypeptide is at least a portion of an antibody.

70. (previously presented): The method according to claim 25 wherein the ligand is a polypeptide, a peptidomimetic, a polysaccharide, a lipid, or a nucleic acid.

71. (previously presented): The method according to claim 70 wherein the polypeptide is at least a portion of an antibody.

72. (previously presented): The method of claim 1 wherein the target resides in a mammalian subject.

73. (previously presented): The method of claim 72 wherein said subject is human.

74. (previously presented): The method of claim 18 wherein the target resides in a mammalian subject.

75. (previously presented): The method of claim 74 wherein said subject is human.

76. (previously presented): The method of claim 1 wherein said nanoparticles comprise at least one liquid fluorocarbon encapsulated with at least one lipid surfactant.

77. (previously presented): The method of claim 18 wherein said nanoparticles comprise at least one liquid fluorocarbon encapsulated with at least one lipid surfactant.